Proposal # 2001- K-215 (Office Use Only)

A. COVER SHEET

Proposal Title: **Clear Creek Juvenile Salmonid Monitoring Project**

Applicant Name: **Fish and Wildlife Service, Northern Central Valley Fish and Wildlife Office**

Primary Contact: **James G. Smith**
Mailing Address: **10950 Tyler Road**
Red Bluff, CA 96080
Telephone: **(530) 527-3043**
Fax: **(530) 529-0292**
E-mail: **jim_smith@fws.gov**

Amount of funding requested: **$279,545** (year 1), $289,083 (yr 2), $302,398 (yr 3)

State cost: $_____ Federal cost: $_____

Cost share partners? ___Yes ___No XXX (Identify partners and amount contributed by each)

Indicate the Topic for which you are applying (check only one box).

Natural Flow Regimes	Beyond the Riparian Corridor
Nonnative Invasive Species	Local Watershed Stewardship
Channel Dynamics/Sediment Transport	Environmental Education
Flood Management	Special Status Species Surveys & Studies
Shallow Water Tidal/ Marsh Habitat	■ Fishery Monitoring. Assessment & Research
Contaminants	Fish Screens

What county or counties is the project located in? **Shasta County**

What CALFED ecozone is the project located in? **4.1- Clear Creek of the North Sacramento Valley**

Indicate the type of applicant (check only one box):.

State agency	■ **Federal agency**
Public/Non-profit joint venture	Non-profit
Local government/district	Tribes
University	Private **party**
Other:	

Indicate the primary species which the proposal addresses (check all that apply):

San Joaquin and East-side Delta tributaries fall-run chinook salmon
Winter-run chinook salmon
■ **Spring-run chinook salmon**
■ Late.**Fall-run chinook salmon**
■ **Fall-run chinook salmon**
Delta smelt
Longfin smelt
Splittail
■ **Steelhead trout**
Green sturgeon
Striped bass
White Sturgeon
All chinook species
Waterfowl and Shorebirds
All anadromous salmonids
Migratory birds
American shad
Other listed T/E species:

Indicate the type of project (check only one box):

■ **Research/Monitoring**
Watershed Planning
Pilot/Demo Project
Education
Full-scale Implementation

Is this a next-phase of an ongoing project? ***Yes*** XXX No ——

Have you received funding from CALFED before? **Yes** ____ No XXX
(If yes, list project title and CALFED number):

Have you received funding from CVPIA before? Yes XXX No ——

If yes, list CWIA program providing funding, project title and CWIA number (if applicable):

This work is currently funded through the Clear Creek component of the CWIA, and is titled "*Monitoring Juvenile Chinook Salmon and Steelhead in Clear Creek, Shasta County, California*"

By signing below, the applicant declares the following:

■ The truthfulness of all representations in their proposal;

■ The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and

■ The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

Printed name of applicant: James G. Smith

Signature of applicant: James G. Smith

B. EXECUTIVE SUMMARY

Proposal Title: Clear Creek Juvenile Salmonid Monitoring Project
Applicant Name: Fish and Wildlife Service
Northern Central Valley Fish and Wildlife Office
Primary Contact: James G. Smith
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Red Bluff, CA 96080
Telephone: (530) 527-3043
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E-mail: jim_smith@fws.gov

Amount of funding requested: **$279,545** (year 1), $289.083 (yr 2), $302,398 (yr 3)
Participants and collaborators: Comprehensive Assessment Monitoring Program

1. Project Description **And Primary** Objectives:

This project is located in Clear Creek, Shasta County, California. The project will monitor juvenile salmonid outmigration and condition to provide information to managers in assessing the effectiveness of restoration activities funded through the Central Valley Project Improvement Act (CVPIA), and to provide managers with a direct means to apply adaptive management to the restoration planning and implementation process.

The approach is to directly monitor the annual production of juvenile salmonids in Clear Creek. Juvenile fish will be captured in a rotary screw trap and enumerated as they emigrate from Clear Creek. Fish abundance, size, and physical condition information will be coupled with environmental data such as season, flow, temperature, and climate to evaluate empirical relationships between habitat and fish abundance, and how they relate to restoration activities within the Clear Creek basin. The trap operates year-round to enable sampling of steelhead trout and the different races of chinook salmon; both species are known to exhibit varied freshwater residence times.

The null hypothesis to be tested is proposed as follows:

The annual production of juvenile salmonids will increase relative to pre-restoration levels.

Uncertainties'in our ability to detect significance exist whenever animal populations are studied. The production levels and survival of fish populations are subject to annual variations regardless of the quality **of** the habitat. These variations may be caused by environmental and biological conditions (climate, geologic events, primary production, intrinsic factors, disease, fire, etc.).

The program's expected outcome will be to document annual increases in production of juvenile salmonids. We expect that future fish populations will fluctuate widely in annual production levels, but at a higher arithmetic mean levels of abundance than prior to restoration efforts.

This project is applicable to CALFED and CVPIA goals of monitoring and restoring salmonid populations and supports the fundamental concepts of the adaptive management process.

C. PROJECT DESCRIPTION.

1. Statement **of** the Problem

a. Problem - The "problem" or technical challenge is to scientifically estimate annual production levels ofjuvenile salmonids to assess the effectiveness of the Clear Creek restoration program efforts. The ERP goals calls for achieving recovery of at-risk native species and restoring ecosystem function. The Anadromous Fish Restoration Program (AFRP) goals calls for the doubling-of naturally produced anadromous fish populations. To enable scientificallybased estimates ofjuvenile production, we propose the following objectives:

i) estimate annual production ofjuvenile salmon ***(Oncorhynchus*** sp.) and steelhead ***(O.mykiss)***, using indices of abundance for inter-year comparisons; and obtain additional biological information on:

i) define timing of fry emergence; define timing of **fiy** emigration; and estimate size of emigrating salmon.

b. Conceptual model - ***(Figure I orfreelance "prz" file).***

The model depicts the "fundamental concept" as the progressive sequence towards attaining the desired outcome of restoring Clear Creek fish habitat and populations. The "actions" represents the restoration program efforts. The "monitoring program" may universally apply to various monitoring but in this model it is specific to juvenile monitoring. The monitoring program is a direct link to the fundamental concept pathway and provides a evaluation/action modification feedback loop for the adaptive management process.

c. Hypotheses being tested - The null hypothesis is:

"The annual production ofjuvenile salmonids will increase relative to pre-restoration levels".

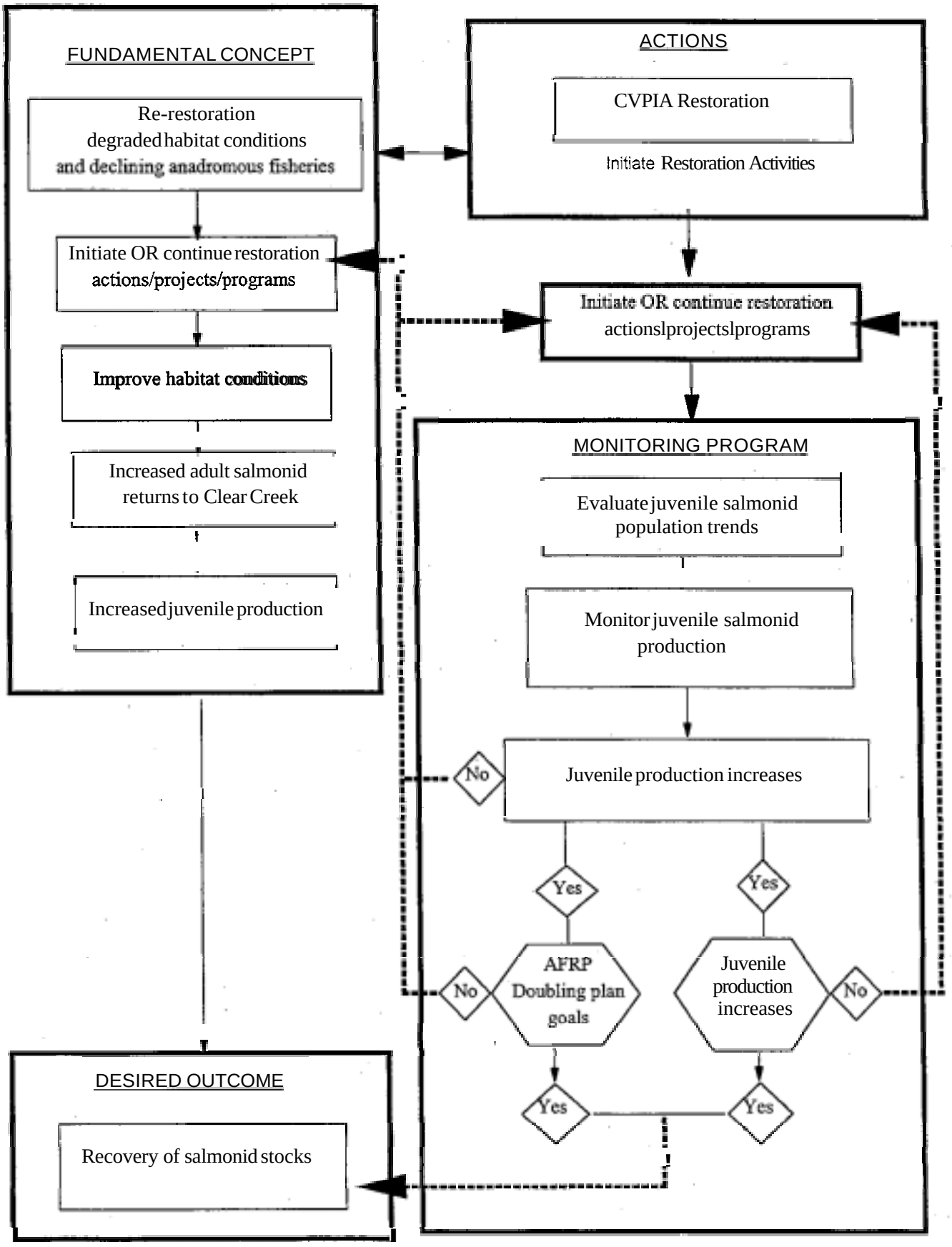
This hypothesis addresses the ERP strategic goal of recovering at-risk species as well as the CVPIA mandate of doubling the natural production of anadromous fish populations. This monitoring project will directly assess whether the CVPIA goal is being met. The data obtained will also help managers in their planning and implementation of actions to meet the CVPIA and CALFED goals.

d. Adaptive Management - The monitoring of salmonid populations are necessary to determine production levels, and assure that restoration measures in Clear Creek are meeting CVPIA/CALFED goals. Rotary screw trapping is an effective and demonstrated tool for capturing juveniles, and when utilized in conjunction with empirically based efficiency trials will yield indices of abundance for outmigrating salmonids.

This proposal request is for continuation of on-going juvenile monitoring activities in lower Clear Creek. The monitoring information will guide managers both in planning future restoration work in Clear Creek as well as making modifications to current activities towards improving habitat conditions for fish. For example, the response of fish to stream flow levels can be evaluated to assess appropriate streamflow volume, timing, and water quality.

e. Educational Objectives - Rotary screw trap operations are highly visible, and is conceptually simple for the general public, political decision-makers, and for executive level managers to understand. The

Figure 1. Conceptual model for the Clear Creek juvenile salmonid monitoring project.



trapping operations are of high public relations value, and the real-time nature of the collected information is valuable to the scientific community.

2. Proposed Scope of Work

a. Location and/or Geographic Boundaries of the Project - Clear Creek, a tributary to the Sacramento River, is located in Shasta County. Anadromous fish restoration activities are located in Clear Creek, downstream of Whiskeytown Dam, a feature of the Central Valley Project, which imports Trinity River water which is important for augmenting flows into the Sacramento River and for maintaining water quality in the Bay-Delta.

The proposed work boundaries is the reach of Clear Creek from its confluence with the Sacramento River, upstream to Whiskeytown Dam, a distance of 29 river kilometers (rkm). The project's focal point is the location of the rotary screw trap which is about 2.7 rkm; the corresponding geographic coordinates are T31N, R5W, sec. 29. The rotary trap is situated about **1.6** km upstream from the Highway 273 crossing.

b. Approach - Standard protocols for rotary screw trap sampling as described in the CVPIA CAMP will be followed (CVPIA 1997). Rotary screw traps (manufactured by E.G. Solutions, Corvallis, OR) consist of a funnel shaped core screened throughout with 3-mm diameter perforated plate and suspended between two aluminum pontoons. The cone acts as a sieve separating fish from the water entrained. Water flowing into the funnel transfers rotational energy to the internal screw core, causing the funnel to rotate. With each rotation, entrained fish are guided into an attached live box at the rear of the trap.

The sampling site is upstream of the Highway 273 crossing, at rkm 2.7. The site was selected based on the suitability of hydraulic conditions for sampling and accessibility to install and monitor the trap.

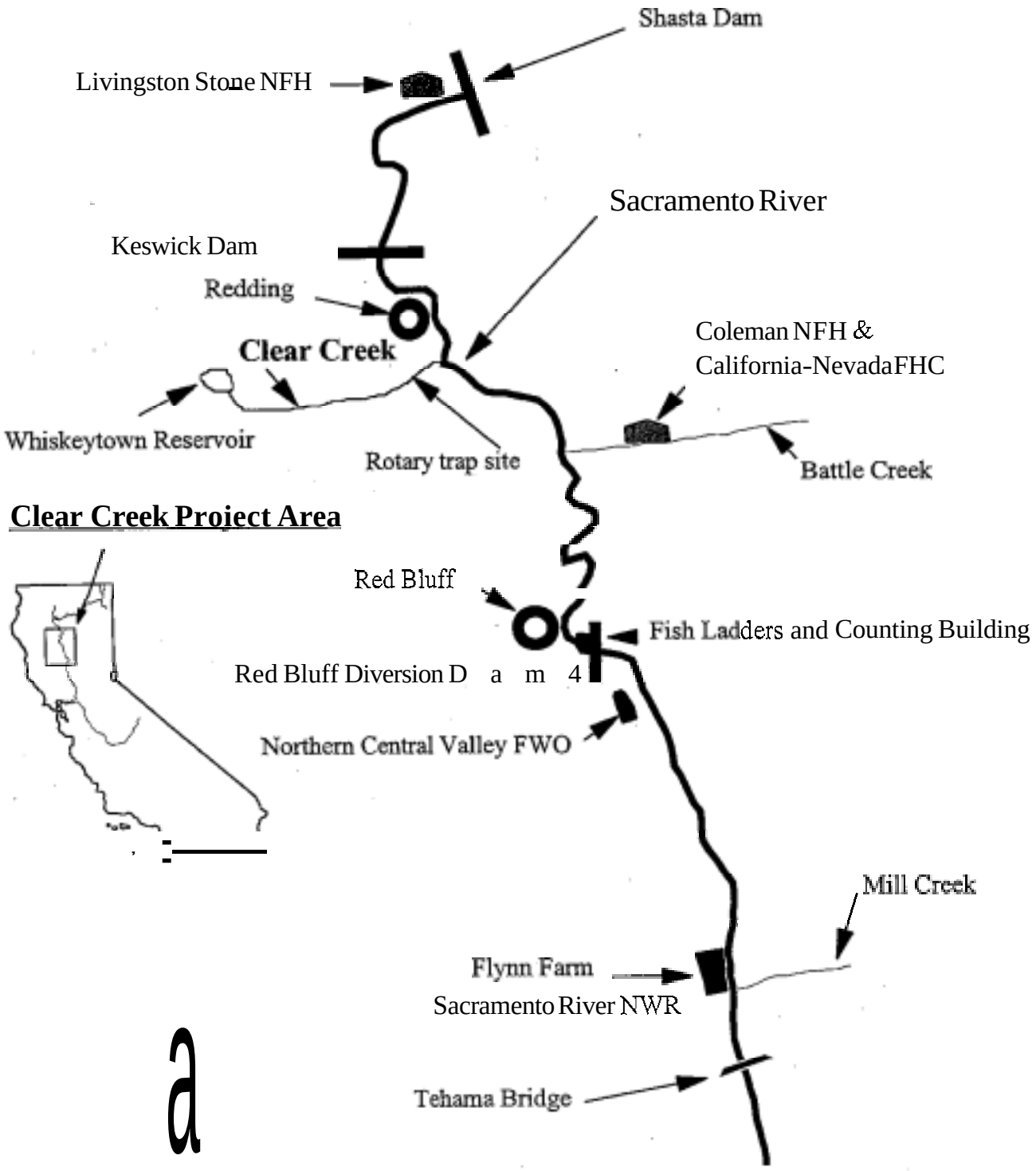
The absolute abundance indices for juvenile salmon migrants will be estimated by the rotary screw trap efficiency method (Thedinga et al. 1994, Keenan et al. 1994). Indices for total fish passing the sampling transect will be calculated daily from catches in the trap which are corrected by trap efficiency estimates. Relative abundance of juvenile salmonids will be calculated from catch per volume of water sampled. Abundance indices for chinook salmon and steelhead will be used to evaluate seasonal distribution patterns and inter-year trends in abundance.

c. Monitoring and Assessment Plans - The success of this program has already been demonstrated during the past period of trap operation. The rotary screw trap, a sampling device, in conjunction with the sampling protocols and methodology, has withstood peer review and is a scientifically proven means of collecting infomation from juvenile salmonids. The monitoring program has been designed to be compatible with the Comprehensive Assessment and Monitoring Program (CAMP) component of CVPIA. This work is also coordinated with the Monitoring Subcommittee of the Clear Creek Technical Work Group.

d. Data Handling and Storage - Field data are recorded onto paper field sampling forms and originals are retained at NCVFWO's remote trailer in Anderson, CA. The field data is electronically stored in a dBase database. Bi-weekly summaries of the rotary trapping results are e:mailed to CAMP, Interagency Ecological Program (IEP), Chico State University, and various government agencies.

Electronic copies of the database and/or bi-weekly summaries are available upon written or e:mail request from NCVFWO.

Figure 2. Clear Creek project location and related areas of Northern Central Valley, California.



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e. Expected Products/Outcomes - This project will provide the following products:

1) Bi-weekly (preliminary) monitoring summaries are provided to various governmental agencies and to Chico State University.

1) A annual report will be prepared in accordance with the American Fisheries Society standards.

In addition, our data is made available through the IEP real-time monitoring program; data summaries are posted on the IEP website every Monday, Wednesday, and Friday, and also e:mailed to agencies responsible for management of the CVP, SWP, and Delta operations.

f. Work Schedule - (see Section F.1 - Budget) The federal FY 2001 begins on October 1,2000, and field operations funded through this proposal will operate continuously from this date through September 30, 2002. The basis for this work schedule assumes that this monitoring activity will be funded continuously for at least three consecutive fiscal years.

Quarterly reports would be distributed during December, March, June, and September of each year. **A** annual report will be completed for each fiscal year, with a printed report accountable before the end of each fiscal year.

g. Feasibility - This monitoring project has been in place for over one year, and has demonstrated its feasibility and has been accepted by the scientific community as a viable sampling program. The study sampling methods have been described in previous sections of this proposal. The sampling efforts have been unhindered by inclement conditions, other than the most severe flow events.

At present, the Clear Creek rotary trapping program and the Service's rotary trapping on Battle Creek are operated by the same personnel; these programs are supervised by Mr. Craig Martin, principal investigator. These two separate programs are functionally managed as one, which allows considerable staff/resource efficiency; this would not be possible if the **two** programs were operated by two separate crews. (e.g.) If CALFED funded the Battle Creek rotary trapping projects, this (Clear Creek) proposal could be accomplished with an additional approximate $105,000. Please note that this Clear Creek proposal as a "stand-alone" project costs $279,545 for the first year.

The aforementioned Battle Creek rotary trapping work is being submitted to CALFED under a multi-task proposal titled: *"Battle Creek Anadromous Salmonid Monitoring Projects"*, which also includes other fisheries monitoring activities. In addition, NCVFWO will be seeking CAMP funding (through CVPIA) to conduct rotary screw trapping in lower Battle Creek, to maximize consideration.

The Clear Creek project is dependent upon a section 10 research study permit regulatory permitting approval under the Endangered Species Act, administered by the National Marine Fisheries Service (NMFS). During December 1998, NCVFWO filed a request for modification of **our** NMFS Number 990 permit to include rotary screw trapping in Clear Creek (this permit expires on June 30,2001). We are currently preparing section 10 permit applications to request coverage for spring chinook salmon and

steelhead trout, which are both federally listed as threatened species. We cannot predict the outcome of the terms of NMFS' section 10 permit modification. Otherwise, the continuation of this monitoring activity is not contingent upon other proposals, or field activities of other agencies.

A State Scientific Collector's permit is required to capture fish. Project personnel possess current permits; these permits are renewed prior to expiration.

At present, the Service has verbal permission to enter private property adjacent to Clear Creek in order to access the rotary trap. Our field personnel are in regular contact with the property owner, and presently we are arranging for written permission to obtain continued access through the property for next fiscal year.

D. APPLICABILITY TO CALFED ERP GOALS AND IMPLEMENTATION PLAN AND CVPIA PRIORITIES

1. ERP Goals and CVPIA Priorities.

This proposal enables the Clear Creek restoration efforts to gage the progress towards attaining CALFED Goal #1 (achieving recovery of at-risk native species (all runs of chinook salmon and steelhead trout), and Goal #2 (rehabilitate natural processes, such as stream-flows). The monitoring of juvenile salmonid populations in Clear Creek provides a direct feedback pathway to adjust restoration actions to ensure ecosystem processes and fish populations are being restored.

Similarly, the fish population monitoring is necessary to ascertain that restoration efforts are progressing towards the CVPIA goal of doubling anadromous salmonid populations.

2. Relationship to Other Ecosystem Restoration Projects.

The juvenile monitoring will be directly beneficial and compatible to the evaluation of flows and water temperatures in Clear Creek, the stream channel restoration activities (spawning gravel placement, riparian community restoration, and future dam removal). The future activities are expected to increase the quantity and quality of the spawning and rearing habitat for salmonids, and therefore increase numbers of salmonids in the system. This proposal will monitor juvenile salmonids, and thereby discern annual changes in juvenile production.

3. Requests for Next-Phase Funding.

Juvenile monitoring is a long-term commitment, and the current program warrants continuation beyond the current fiscal year, and is necessary to evaluate beyond a three-year horizon to evaluate habitat restoration measures (such as riparian and channel restoration measures) that require several years to fully realize their benefits. Also, the life cycle of anadromous salmonids can require from two to several years to complete, which further stresses the need for planning long-term monitoring work.

Over time, the full recovery of habitat and fish populations in Clear Creek is anticipated. As fish populations stabilize, the monitoring objectives may be changed, and the juvenile monitoring program may be changed accordingly.

4. Previous Recipients **of** CALFED **or** CVPIA funding.

This proposal is a request for continuation of a current on-going program whose original proposal was titled *"Monitoring Juvenile Chinook Salmon in Clear Creek, Shasta County, California "*, which is being funded through the Clear Creek component of CVPIA.

This project has been in continuous operation since December 1998, and a funding agreement is in place through September 30, 2000.

5. **System-Wide** Ecosystem Benefits.

The Clear Creek juvenile monitoring program represents one of many on-going monitoring efforts within the Sacramento-San Joaquin River system. The composite information generated from these different provides resource managers with empirically based knowledge for decision-making.

E. QUALIFICATIONS.

Project Office : The Northern Central Valley Fish and Wildlife Office (NCVFWO) was established in 1978 as part of the FWS' federal leadership responsibility to facilitate restoration of Pacific salmonids. The Service has a strong interest in mitigating the impact of the Central Valley Project on Clear Creek. The Service has played a major role in recent restoration efforts in Clear Creek. NCVFWO has been evaluating the benefits of increased stream flows on Clear Creek since 1995, including monitoring juvenile salmon and steelhead populations.

Currently, the staff consists of over 40 biologists and support personnel, and conducts various fishery monitoring activities in the mainstem Sacramento River, Battle Creek and Clear Creek, conducts hatchery evaluation of Coleman and Livingston Stone National Fish Hatcheries, and also implements the provisions of the President's Northwest Forest Plan.

Project Personnel:

James G. Smith is the Project Leader of the NCVFWO. Jim received his Bachelor of Science degree in Fisheries from Humboldt State University. Jim has worked as a professional biologist for over 20 years, which includes experience in Washington, Oregon, and California. Mr. Smith has been involved with fish passage investigations at Red Bluff Diversion Dam, juvenile monitoring, and hatchery evaluation efforts at Coleman National Fish Hatchery.

Tom T. Kisanuki is the Deputy Project Leader of the NCVFWO. Tom received his Bachelor of Science degree in Wildlife and Fisheries Biology from the University of California at Davis, and his Master of Science degree in Natural Resources from Humboldt State University. Tom's professional background includes the assessment of forestry practices on salmonid habitat, and has 15 years of various anadromous salmonid habitat and population monitoring work in the Klamath River basin.

Craig D. Martin is a Supervisory Fishery Biologist with the NCVFWO, and is the primary investigator of the Clear Creek monitoring program. Craig received his Bachelor of Science degree in Wildlife

Management from West Virginia University, and his Master of Science degree in Fishery Biology from Oklahoma State University. Mr. Martin possesses a diverse academic and professional background, and supervises NCVFWO's juvenile monitoring programs on the mainstem Sacramento River, Battle Creek and Clear Creek. Mr Martin's tenure with NCVFWO began in 1995.

Phillip Gaines is a Fishery Biologist with the NCVFWO. Phillip received his Bachelor of Science and Master of Science degrees in Zoology from the University of Oklahoma. Phillip provides analytical and logistical support to NCVFWO's juvenile monitoring programs on the mainstem Sacramento River, Battle Creek and Clear Creek. Phillip's technical strengths are his statistical and computer expertise, and has been employed by NCVFWO since 1998.

F. COST

1. Budget.

This project is a three-year monitoring program. NCVFWO can also operate the project on an annually funded basis. Detailed salary and benefit costs, equipment, expendables, and other costs are provided in Tables 1, 2, and 3. The overhead costs incurred by NCVFWO are identified as "other staff' in Table 2, which primarily includes personnel support vital to the execution of this project (administrative staff, clerks, maintenance mechanic, etc), and approximates a 15% rate. The overhead rate of 3% is a Service mandated administrative requirement specific to CALFED proposals; this component of the funding does not go towards NCVFWO project operations.

2. Cost-Sharing.

At present, there are no cost-sharing arrangements (with other agencies/funding sources) in place; the current project is funded through the Clear Creek component of CVPIA. We will seek other funding sources for this project in the event we do not receive CALFED funding.

As stated under the Feasibility section of this proposal, there is considerable efficiency in staffing and resource requirements if the Service's Battle Creek monitoring proposals are funded (to operate two rotary traps) in conjunction with this (one trap is operated on Clear Creek) juvenile monitoring program. (e.g.) the traps should be serviced twice per day, it take 2 to 3 hours per shift to service one trap. Employing two. shifts per day for the 5 hours of work is less cost-effective. Employing the same two shifts for 15 hours of work is more effective. Thus, servicing three rotary traps optimizes the effectiveness of the overall Clear Creek and Battle Creek operations. The three traps potentially may be funded by three different sources (CVPIA Clear Creek program, CVPIA CAMP, and CALFED). Unfortunately, if funding is not realized for one of the other traps, then the cost to operate the remaining traps increases.

Table 1. Annual and total budget costs for the Clear Creek juvenile monitoring project.

Year/Cost	Salary and Benefits	Training, Travel and Per Diem	Vehicle Gas and Mileage, Supplies & Expendables	Equipment Including Vehicle and Computer Purchases	Service Contracts	Overhead (3%)	Total Cost
Year 1							
Totals:	$244,678	$2,400	$13,825	$10,5001	$0	$8,142	$279,545
Year 2							
Totals:	$252,868	$2,496	$14,378	$10,921	$0	$8,420	$289,083
Year 3							
Totals:	$264,684	$2,596	$14,953	$11,357	$0	$8,808	$302,398
Total Project Costs:	$762,230	$7,492	$43,156	$32,778	$0	$25,3701	$871,026

Table 2. Annual costs for Clear Creek juvenile salmonid monitoring project.

FY 2001

Rotary-Screw Trap	Level	Salary	Benefits	Total	FTE's	TOTAL
	GS-5	23,732	1,827	25,559	1.50	38,339
	GS-5	24,522	6,081	30,604	3.00	91,812
	GS-7	30,374	7.533	37,907	1.00	37,907
	GS-9	37,157	9,215	46,372	0.50	23,186
	GS-11	49,408	12,762	59,170	0.25	14,793
	*Other staff	33,039	7,484	39,922	0.87	34,892
Overtime costs:						3,750
Other costs (training, travellper diem, gaslmileage. supplies, equipment, vehicle/computer						26,725
				Subtotal:		271,403
Overhead @3%						8,142
Total Project Cost:						279,545

FY 2002

Rotary-Screw Trap	Level	Salary	Benefits	Total	FTE's	TOTAL
	GS-5	24,681	1,900	26,851	1.50	40,277
	GS-5	25,503	6,325	31,828	3.00	95,484
	GS-7	31,589	7.834	37,423	1.00	37,423
	GS-9	38,643	9,584	48,227	0.50	24,114
	GS-11	48,264	13,273	61,537	0.25	15,384
	"Other staff	33,736	7.783	41,173	0.88	36,068
Overtime costs:						4,120
Other costs (training, travellper diem, gaslmileage, supplies, equipment, vehicle/computer						27,794
				Subtotal:		280,663
Overhead @3%						8,420
Total Project Cost:						289,083

FY 2003

Rotary-Screw Trap	Level	Salary	Benefits	Total	FTE's	TOTAL
	GS-5	25,668	1,976	27,645	1.50	41,468
	GS-5	26.523	6,578	33,101	3.00	99,303
	GS-7	32,853	8,147	41,000	1.00	41,000
	GS-9	40,189	9.967	50,156	0.50	25,078
	GS-11	50,195	13,804	62,998	0.25	15,750
	*Other staff	35,086	8,094	42,980	0.88	37,736
Overtime costs:						4,350
Other costs (training, travellper diem, gaslmileage, supplies, equipment, vehiclelcomputer						28,906
				Subtotal:		293,590
Overhead @3%						*8,808*
Total Project Cost:						302,398

* Other positions- administrative officer, office automation clerk, maintenance worker, etc.

Table 3. Clear Creek juvenile salmonid monitoring project.

	Year 1	Year 2	Year 3
Salary and Benefits	240,928	248,749	260,334
Overtime	3,750	4,120	4,350
Subtotals:	244.678	252,869	264,684
Trainina, Travel and Per Diem			
Swift Water Rescue Certification	1,500	1,560	1,800
Motor Boat Operators Certification	900	936	980
Subtotals:	2,400	2,496	2,780
Vehicle Gas, Mileage, Supplies and Expendables			
Mileage (50K miles)	9.500	9,880	10,100
Fish Anesthetic	800	832	865
Chemical Staining Agent	525	546	568
Photonic Tagging System	2,000	2,080	2,163
Cell Phones/Pagers	500	520	545
Steel Cable, Safely Lines and etc.	500	520	545
Subtotals:	13,825	14,378	14.786
Equipment (includes Vehicle and Computers)			
Rotary-screw Trap (spare)	5,000	5,200	5,350
Equipment (replacement parts)	3,000	3,120	3,215
Computer	2,500	2,600	2,775
Subtotals:	10,500	10,920	11,340
Overhead @3%	8,142	8,420	8,808
GRAND TOTALS:	279,545	289,083	302,398

G. LOCAL INVOLVEMENT

The Service has been actively involved with the various restoration entities and numerous multi-agency technical groups involved in restoring/managing the fisheries of Clear Creek and upper the Sacramento River system, such as the Shasta-Tehama Region Bio-Regional Council. Shasta County is aware of the Service's activities in Clear Creek. The Chair of the Shasta County Board of Supervisors is the head of the Social Subcommittee of the Clear Creek Coordinated Resource Management Planning (CRMP) group.

Many local individuals and organizations have become aware of the Clear Creek rotaryt trapping efforts since it bean a year and a half ago. One of **our** major cooperators is the Western Shasta Resource Conservation District which represents local landowners: We have presented our monitoring results to groups such as the Clear Creek CRMP, and the Clear Creek Technical Team (which also has participation from the City of Redding, Shasta County Department of Education, Shasta College, Horsetown Clear Creek Preserve, local sportsmans groups, NORCAL Fishing Guides Association, Northern California Power Association, SMUD, and the Central Valley Project Water Users Association, as well **as** various local State offices (SWRCB, CDFG, DWR, and CDF), and federal (FWS, BOR, **NMFS,** BLM, NPS, NRCS< and WAPA) agencies.

We have also contacted other interested parties in person, including the Redding Rancheria, and the Anderson-Cottonwood Irrigation District.

The Service will continue our proactive outreach effort with Shasta County and the City of Redding to inform them of our monitoring activities in Clear Creek, and the role the Service plays in managing and restoring the fisheries of the upper Sacramento River system.

H. COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

Attachment D, Terms and Conditions for State Proposition 204 Funds, Section **3,** states:

*"PerformanceRetention: Disbursements shall be made on the basis of costs incurred to date, less ten percent of the total invoice amount. Disbursement of the ten percent retention shall be made either: (I) upon the Grantee's satisfacto**y** completion of a discrete project task (ten percent vetention for task will be reimbursed); or (2) upon completion of the project and Grantee's compliance with project closure requirements specified by CALFED (ten percent retention for entire project will be disbursed)".*

The Fish and Wildlife Service (Service) cannot agree to a standard clause requested for State funded projects. Attachment D, Terms and Conditions for State Proposition 204 Funds, Section 3, states:

> *"PerformanceRetention: Disbursements shall be made on the basis of costs incurred to date, less ten percent of the total invoice amount. Disbursement of the ten percent retention shall be made .either: (I) upon the Grantee's satisfactory completion of a discrete project task (ten percent retention for tusk will be reimbursed);* **or** *(2) upon completion of the project and Grantee's compliance with project closure requirements specified by CALFED (ten percent retention for*

entire project** will **be disbursed)".

The Services's authorization to enter into agreements with non-Federal entities was changed in FY 2000. **Our** FY2000 Appropriations bill authorizes the Service to enter into contracts with State agencies when advance payment to the Service is not possible. In accordance with the requirements imposed by Congress in the FY2000 Appropriations bill and report language, the Service's Director must approve a project when advance payment is not possible and certify that payments will be made in full by the State within 90 days after the Service issues an invoice.

Specifically, the 10% retention clause cannot allow timely payments for the following reasons:

In our Federal Financial System (FFS) accounting program, a periodic invoice (either quarterly or monthly depending on the terms of the contract) is automatically issued fi-om ow Denver Finance Center (DFC) based on actual expenditures of the Service on a project. Invoices include a payment due date on the invoice and when payment is not received in full by that due date, the system automatically shows the unpaid balance as delinquent. Depending on how delinquent the payment is, interest, penalty and administrative charges may also accrue. With 10% retention withheld on each invoice, the 10% retention amount then causes applicable invoice record in FFS to be partly delinquent and remain delinquent until the project or individual tasks identified in the contract are completed and the retention is released.

The Service's DFC must report to the Department of Treasury if the Service is owed funds by any entity. Therefore, when accounts remain delinquent due to the 10% retention of payments owed the Service, that delinquency continues to be reported to Treasury.

The Service has previously entered into agreements with the State of California that do not contain the 10% retention clause.

We have asked the State's Deputy Attorney General (see attached letter) to provide clarifying guidance to the Department of Water Resources that is general in scope, which can **also** be applied to contracts related to the CALFED program.

Our offices will continue to work with the State closely on State funded projects. If the State is not satisfied with the work performed by the Service, the State project m'anagershould contact the Service's project manager to correct the performance problem. If needed, upon notification interim billings can be canceled until the State is satisfied with the Service's performance.

I. LITERATURE CITED

CVPIA (Central Valley Project Improvement Act). 1997. CVPIA Comprehensive assessment and monitoring program: standard protocol for rotary-screw trap sampling of outmigratingjuvenile salmonids. Central Valley Fish and Wildlife Restoration Program Office, Sacramento, CA.

Keenen, J.G., **S.J.** Wisniewski, N.H. Ringler, and H.M. Hawkins. 1994. Application and modification of

an auger trap to quantify emigrating fishes in Lake Ontario tributaries. North American Journal of Fisheries Management. 14:828-836.

Thedinga, J.F., M. L. Murphy, S.W. Johnson, J.M. Lorenz, and K.V. Koski. 1994. Determination of salmonid smolt yield with rotary-screw traps in the Situk River, Alaska, to predict effects of glacial flooding. North American Journal of Fisheries Management. 14:837-851.

ENVIRONMENTAL COMPLIANCE CHECKLIST

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. ***Failure to answer these questions and include them with the application will result in the application being considered non-responsive and not considered for funding.***

1. Do any of the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), or both? **YES.**

2. If you answered yes to # 1, identify the lead governmental agency for CEQA/NEPA compliance. **Fish and Wildlife Service.**

3. If you answered no to # 1, explain why CEQA/NEPA compliance is not required for the actions in the proposal. **NA see # 1.**

4. If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion. **The type of proposed monitoring uroiects are categorically excluded in the Fish and Wildlife Service Departmental Manual at 516 DM 6 Appendix 1.4 Categorical Exclusions Section B. Resource Management: (1) Research, inventory. and information collection activities directly related to the conservation of fish and wildlife resources. A Categorical Exclusion Checklist will be completed following project funding.**

5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal? If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with 30 days of notification of approval. **Yes, we will require continued access across property that the FWS does not own. We will obtain written permission for continued access from the property owner. In the past, we obtained written and verbal uermission from the current and previous private landowner for access.**

6. Please indicate what permits or other approvals may be required for the activities contained in your proposal. Check all boxes that apply.

LOCAL

Conditional use permit ___
Variance ___
Specific plan approval ___

Subdivision Map Act approval ___
Grading permit ___
General plan amendment ___
Specific plan approval ___
Rezone ___
Williamson Act Contract cancellation
Other _____(please specify)
None required ___

STATE

CESA Compliance XXX

Streambed alteration permit ___
CWA § 401 certification ___
Coastal development permit ___
Reclamation Board approval ___
Notification ___

Other- Scientific Collection permit

CDFG Scientific Collector Permit

FEDERAL

ESA Consultation XXX (NMFS)

Rivers & Harbors Act permit ___
CWA $404 permit ___
Other Section 10 research permit
None required ___

LAND USE CHECKLIST

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. *Failure to answer these questions and include them with the application will result in the application being considered non-responsive and* not *considered for funding.*

1. Do the actions in the proposal involve physical changes to the land (i.e. grading, planting vegetation, or breeching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)? **NO.** ___

2. **If** NO to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only). **The monitoring projects will not involve physical changes to the land.**

3. If YES to # 1, what is the proposed land use change or restriction under the proposal? **NA see # 1.**

4. If YES to # 1, is the land currently under a Williamson Act contract? **NA see # 1.**

5. If YES to # 1, answer the following: current land use, current zoning, current general plan
designation: **NA see # 1.**

6. If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on the Department of Conservation Important Farmland Maps? **NA see # 1.**

7. If YES to # 1, how many acres of land will be subject to physical change or land use restrictions under the proposal? **NA see # 1.**

8. If YES to # 1, is the property currently being commercially farmed or grazed? **NA see # 1.**

9. If YES to #8, what are the number of employees/acre, the total number of employees **NA see # 1.**

10. Will the applicant acquire any interest in land under the proposal (fee title or a conservation easement)? **NO.**

11. What entity/organization will hold the interest? **NA *see* # 1.**

12. If YES to # 10, answer the following total number of acres to be acquired under proposal, number of acres to be acquired in fee, number of acres to be subject to conservation easement. **NA see # 10.**

13. For all proposals involving physical changes to the land or restriction in land use, describe what entity or organization will: manage the property, provide operations and maintenance services, conduct monitoring. **NA *see* # 10.**

14. For land acquisitions (fee title or easements), will existing water rights be acquired? **NA see # 10.**

15. Does the applicant propose any modifications to the water right or change in the delivery of the water? **NA see # 10.**

16. If YES to # 15, describe. **NA *see* # 10.**

United States Department of the Interior

FISH AND **WILDLIFE** SERVICE

Northern **Central Valley Fish and Wildlife Office**
10950 Tyler Road
Red Bluff, California 96080
Office (530) 527-3043 Fax (530) 529-0292

May 15,2000

Mr. Ron Hill
Director, Public Works
1855 Placer Street
Redding, California 96001

Dear **Mr.** Hill

The U.S. Fish and Wildlife Service is pleased to provide you with copies of four salmon and steelhead monitoring, assessment, and research project proposals we **are** submitting to the CALFED Bay-Delta Program for funding consideration in response to the **2001** Proposal Solicitation Package. The projects that are proposed to be conducted in or near Shasta and Tehama counties are,

1. Battle Creek anadromous salmonid monitoring projects,
2. Clear Creek juvenile salmonid monitoring project,
3. Sacramento River winter chinook salmon carcass survey,
4. Estimating the abundance of Sacramento River juvenile winter chinook salmon with comparisons to adult escapement.

Prior to conducting any monitoring efforts on private lands, written permission from landowners will be obtained. We have already taken steps to contact local landowners, discuss with them our proposed activities, and **ask** for permission to conduct these studies on their lands.

The infomation generated from these monitoring efforts are expected to improve our understanding of the ecological and physical processes affecting the salmon and steelhead resources of the north state. Through projects such as these, we hope to reduce the scientific uncertainties and recover listed stocks of salmon and steelhead.

Should you require further information, please contact me at **(530) 527-3043.**

Sincerely,

James **G.** Smith
Project Leader

Enclosures

United States, Department of the Interior

FISH AND WILDLIFE SERVICE

Northern Central Valley **Fish and** Wildlife Office
10950 Tyler Road
Red Bluff, California 96080
Office (530) **527-3043** **Fax** *(530)* 529-0292

May 15, 2000

Mr. Irwin Fust
Chair, Shasta County Board of Supervisors
1815 Yuba Street, Suite 1
Redding, California 96001

Dear Mr. Fust:

The **U.S.** Fish and Wildlife Service is pleased to provide you with copies of four salmon and steelhead monitoring, assessment, and research project proposals we are submitting to the CALFED Bay-Delta Program for funding consideration in response to the 2001 Proposal Solicitation Package. The projects that are proposed to be conducted in or near Shasta and Tehama counties are,

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Sincerely,

James ***G.*** Smith
Project Leader

Enclosures

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Northern **Central Valley Fish and Wildlife Office**
10950 Tyler Road
Red Bluff, California 96080
Office (530) 527-3043 Fax (530) 529-0292

May 15,2000

Mr. George Russell
Chair, Tehama County Board of Supervisors
PO Box 250
Red Bluff, California 96080

Dear Mr. Russell

The U.S. Fish and Wildlife Service is pleased to provide you with copies of four salmon and steelhead monitoring, assessment, and research project proposals we are submitting to the CALFED Bay-Delta Program for funding consideration in response to the **2001** Proposal Solicitation Package. The projects that are proposed to be conducted in or near Tehama and Shasta counties are,

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2. Clear Creek juvenile salmonid monitoring project,
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4. Estimating the abundance of Sacramento River juvenile winter chinook salmon with comparisons to adult escapement.

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Sincerely,

James G. Smith
Project Leader

Enclosures

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Northern Central **Valley Fish and Wildlife Office**
10950 Tyler Road
Red Bluff, California *96080*
Office (530) 527-3043 Fax **(530) 529-0292**

May 15,2000

Mr. Michael Warren
Redding City Manager
777 Cypress Ave.
Redding, California 960001

Dear Mr. Warren

The U.S. Fish and Wildlife Service is pleased to provide you with copies of four salmon and steelhead monitoring, assessment, and research project proposals **we** are submitting to the CALFED Bay-Delta Program for funding consideration in response to the 2001 Proposal Solicitation Package. The projects that are proposed to be conducted in or near the City of Redding;

1. Sacramento River winter chinook salmon carcass survey,
2. Battle Creek anadromous salmonid monitoring projects,
3. Clear Creek juvenile salmonid monitoring project,
4. Estimating the abundance of Sacramento River juvenile winter chinook salmon with comparisons to adult escapement.

Prior to conducting any monitoring efforts on private lands, written permission from landowners will be obtained. We have already taken steps to contact local landowners, discuss with them our proposed activities, and ask for permission to conduct these studies on their lands.

The information generated from these monitoring efforts are expected to improve our understanding of the ecological and physical processes, affecting the salmon and steelhead resources of the north state. Through projects such as these, we hope to reduce the scientific uncertainties and recover listed stocks of salmon and steelhead.

Should you require further information, please contact me at (530) 527-3043.

Sincerely,

James G. Smith
Project Leader

Enclosures